Psycho34 (easy)

In the prime factorization of a number ***N***, there's two kinds of powers. Even powers, in red, are psychotic ones, and odd powers, in blue, are ordinary ones.
We'll say ***N*** a **Psycho** number if the count of even powers is strictly greater than the count of odd powers, else an **Ordinary** number.
For example, if ***N* = 67500** with prime factorization 67500 = 2^2 x 3^3 x 5^4 .
This number have 2 even powers and 1 odd power. Since 2>1, so the number 67500 is a Psycho Number.

Input

The first line of input contains an integer ***T***, the number of test cases.

Each of the next ***T*** lines contains one integer ***N***.

Output

For each test case, print if ***N*** is Psycho or Ordinary number.

Example

Input:
2
3
4

Output:
Ordinary Number
Psycho Number

Constraints

0 < T < 10^4
1 < N < 10^14

Time limit is ×2 my top speed with Python3 language, it could be not easy with slow languages. O(N^.5 / log(N)) should give TLE even with fast languages. You are awaited to submit something between O(N^0.33 / log(N)) and O(N^0.25 / log(N)). You can try before the quite similar "tutorial" problem : Psycho before.
@speed addicts : my top C timing is 0.04s.